

# **Input to JTRS JPO Technical Workshop on DSP and FPGA Portability**

**Presentation on behalf of SDR Forum by**

**John Chapin**  
**Chair, SDRF Hardware Abstraction Layer (HAL) Working  
Group**  
**CTO, Vanu, Inc.**  
**1 Porter Square #18, Cambridge MA 02140**  
**617-864-1711**

# Introduction to the SDR Forum

- **The Software Defined Radio Forum**
  - an international, non-profit organization
  - promotes the development, deployment and use of SDR technologies for advanced wireless systems
- **More than 125 member organizations**

# **SDRF Hardware Abstraction Layer work**

- **HAL definition**
  - standards and services that improve the portability of waveform software and firmware across platforms with different signal processing subsystems
- **HAL working group**
  - established 2002
  - issued Request For Information in Feb 2004
  - 14 responses from North America and Europe
  - draft report scheduled for May 15

## Key points

- **Standardization to improve portability of signal processing code is critical**
  - necessary for long-term success of SDR
- **Development of separate military and commercial standards should be avoided**
  - hurts JPO program goals
  - hurts non-military industry and users

## Recommendations

- **JPO standardization process should consider non-military requirements and commercial best practices**
  - SDRF offers to peer-review the developing standard
  - SDRF offers results of recent HAL RFI
- **Extended SCA should still be**
  - non-ITAR
    - International Traffic in Arms Regulations
  - an open standard
    - any vendor can implement it